

WHAT IS CLAIMED IS:

1. A method of requesting a fault service of a sewing machine, comprising the steps of:

transmitting a service request information through the cable and wireless communication networks, where the sewing machine is stopped by a fault;

transmitting the received service request information to a terminal of a first service personnel nearest to the sewing machine in a service regional center; and

transmitting a service processing particulars to the service regional center through the terminal of the first service personnel, after the fault service treatment is completed by the first service personnel.

2. A method of requesting a fault service of a sewing machine, comprising the steps of:

transmitting a service request information through cable and wireless communication networks, where the sewing machine is stopped by a fault;

transmitting a location information of service personnel to the sewing machine in a service regional center which receives the service request information;

searching and storing the location information of the service personnel received from the service regional center, and transmitting the service request information to a first service personnel terminal nearest to the machine in the sewing machine; and

transmitting a service processing particulars to the service regional center through the terminal of the first service personnel, after the fault service is completed by the first service personnel.

3. The method as claimed in claim 1, further comprising the steps of:

detecting the cause of the fault by itself where the sewing machine is stopped by the fault;

displaying the detected cause of the fault on a screen of the sewing machine;
and

automatically transmitting the service request information to the service regional center through the cable and wireless communication networks, where the cause of the stop of the machine corresponds to pre-setting fault items inputted to the machine in advance.

4. The method as claimed in claim 1, further comprising the steps of:

detecting the cause of the fault by itself where the sewing machine is stopped by the fault;

displaying the detected cause of the fault on a screen of the sewing machine;
and

manually transmitting the service request information to the service regional center through the cable and wireless communication networks by an operator, according to the fault cause.

5. The method as claimed in claim 1, further comprising the steps of:

detecting a location information of the sewing machine according to the service request information in the service regional center which receives the service request information; and

detecting a location information of the first service personnel according to the location information received from the terminal of the first service personnel in the service regional center.

6. The method as claimed in claim 1, further comprising the steps of:

transmitting a message, in which a business trip on the sewing machine is impossible, from the first service personnel to the service regional center;

transmitting the service request information received from the sewing machine

to a second service personnel terminal nearer to the sewing machine; and

transmitting a service processing particulars to the service regional center through the terminal of the second service personnel, after the fault service is completed by the second service personnel.

7. The method as claimed in claim 6, further comprising the steps of receiving the service request information of the sewing machine and the service processing particulars of the first or second service personnel in an agency terminal.

8. The method as claimed in claim 7, further comprising the steps of inquiring about and receiving an information including machine antecedents, embroidery-parts information of the machine, and manuals, next to connect the first or second service personnel terminal to any one of the service regional center and the agency terminal of the machine through the cable and wireless communication networks.

9. The method as claimed in claim 1, wherein the service request information includes a machine information, a machine fault particulars, and a machine location information.

10. A service request system of a sewing machine comprising:

a sewing machine for transmitting a service request information through cable and wireless communication networks during its fault;

a service regional center for searching a location information of the sewing machine by using the service request information received from the sewing machine, detecting a location information of a service personnel from a location signal of a terminal of the service personnel, and transmitting the service request information to the terminal of the service personnel nearest to the sewing machine; and

the terminal of the service personnel for receiving the service request

information from the service regional center and transmitting a location information thereof and a service processing particulars to the service regional center.

11. A service request system of a sewing machine comprising:

a sewing machine for transmitting a service request information through cable and wireless communication networks during its fault, receiving a location information of a service personnel from a service regional center, and transmitting the service request information to a terminal of the service personnel nearest to the sewing machine;

a service regional center for receiving and detecting the location information of the service personnel from a location signal of the terminal of the service personnel and transmitting the location information of the service personnel to the sewing machine, in response to the service request information received through the cable and wireless communication networks; and

the terminal of the service personnel for receiving the service request information from the sewing machine, and transmitting its location information and a service processing particulars to the service regional center.

12. The service request system as claimed in claim 10, wherein the sewing machine comprises:

a storage for storing a plurality of embroidery design files and an embroidery design program;

an input unit for inputting an embroidery design file selection signal and an operation start/stop signal of the sewing machine from an operator;

an embroidery operation unit for embroidering a cloth in response to the signals inputted by the operator through the input unit;

an operating fault detector for detecting a cause of the fault of the sewing machine;

a display unit for displaying information including the location information of the service personnel, the fault information of the embroidery machine, and the embroidery design files and the embroidery design program stored in the storage on a screen thereof;

a signal transmitting and receiving unit for transmitting and receiving data between the sewing machine and any one of the service regional center and the terminal of the service personnel terminal through the cable and wireless communication networks;

a service processing program storage for storing the service processing programs for processing the fault service; and

a control unit for controlling a whole operation of the sewing machine.

13. The service request system as claimed in claim 10, wherein the sewing machine comprises:

a storage for storing a plurality of sewing pattern files and a sewing pattern program;

an input unit for inputting a sewing pattern file selection signal and an operation start/stop signal of the sewing machine from an operator;

a sewing operation unit for sewing a cloth in response to the signals inputted by the operator through the input unit;

an operating fault detector for detecting a cause of the fault of the sewing machine;

a display unit for displaying information including the location information of the service personnel, the fault information of the sewing machine, and the sewing pattern files and the sewing pattern program stored in the storage on a screen thereof;

a signal transmitting and receiving unit for transmitting and receiving data between the sewing machine and any one of the service regional center and the terminal of the service personnel terminal through the cable and wireless communication

networks;

a service processing program storage for storing the service processing programs for processing the fault service; and

a control unit for controlling a whole operation of the sewing machine.

14. The service request system as claimed in claim 12, wherein the service processing program storage includes a service automatic processing program for automatically transmitting the service request information through the cable and wireless communication networks during the fault of the sewing machine, and a service manual processing program for manually transmitting the service request information by the operator through the cable and wireless communication networks during the fault of the sewing machine.

15. The service request system as claimed in claim 10, wherein the service regional center comprises:

a service accepting particulars management database for storing the service request information received from the sewing machine;

a service processing particulars management database for storing the service processing particulars received from the service personnel;

a service personnel location information database for storing the location information of the service personnel;

a machine antecedents management database for storing the machine antecedents information of the sewing machine;

a machinery-parts database for itemizing and storing the machine-parts information of the sewing machine;

a service information management database for storing a base service information of each nation of the sewing machine; and

a manual management database for storing a manual by a specification of the

sewing machine.

16. The service request system as claimed in claim 15, wherein the service regional center comprises:

- a signal transmitting and receiving module for transmitting and receiving data to the sewing machine or the terminal of the service personnel;

- a service accepting and processing module for transmitting the service request information stored in the service accepting particulars management database to the terminal of the service personnel and storing the service processing particulars received from the terminal of the service personnel in the service processing particulars management database;

- a service personnel location information module for detecting the location information of the service personnel according to the location signal received from the terminal of the service personnel terminal and storing the location information in the service personnel location information database; and

- an information providing supporting module for transmitting the information stored in the databases to the service personnel terminal.

17. The service request system as claimed in claim 10, wherein the terminal of the service personnel comprises:

- a signal transmitting and receiving unit for transmitting data between the sewing machine and the service regional center through the cable and wireless communication networks;

- an input unit for inputting a signal for controlling an operation of the service personnel;

- a location signal generation unit for periodically generating the location information informing the present location of the service personnel;

- a ROM for storing the programs for operating and controlling the whole system

of the service personnel terminal;

a RAM for storing various information received from the sewing machine and the service regional center;

a display unit for displaying various information of the sewing machine in response to the signal inputted by the service personnel through the input unit on the screen thereof; and

a control processing unit for operating and controlling the whole system of the terminal of the service personnel.

18. The service request system as claimed in claim 10, wherein the service request information includes a machine information, a machine fault particulars, and a machine location information.

19. A service request system of a sewing machine comprising:

a terminal of an operator for transmitting a service request information through cable and wireless communication networks during a fault of the sewing machine;

a service regional center for searching a location information of the sewing machine by using the service request information received from the terminal of the operator, detecting a location information of a service personnel from a location signal of a terminal of the service personnel, and transmitting the service request information to the terminal of the service personnel nearest to the sewing machine; and

the terminal of the service personnel for receiving the service request information from the service regional center and transmitting its location information and a service processing particulars to the service regional center.

20. The service request system as claimed in claim 19, wherein the terminal of an operator is a wire data terminal, a wireless data terminal, a PDA (Personal Digital Assistant) or a PC (Personal Computer).